

**REMARKS**

Applicants submit this Reply in response to the non-final Office Action mailed May 2, 2007. Before this Reply, claims 1-22 were pending, of which only claim 1 was independent. In this response, Applicants have amended claims 1-13, 17, and 19-22, added new claims 23-25, and canceled claims 14-16 and 18 without prejudice or disclaimer. Applicants have also amended portions of the specification to provide consistency with similar amendments made in related patent applications assigned to U.S. Application Ser. Nos. 10/721,348, 10/721,898, and 10/721,426. No new matter is being added. After these amendments, claims 1-13, 17, and 19-25 are currently pending, of which claims 1 and 23-25 are independent.

In the non-final Office Action dated May 2, 2007, the Examiner provisionally rejected claim 1 under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claim 1 in copending U.S. Patent Application Ser. No. 10/721,898. The Examiner rejected claims 1-22 as being directed to non-statutory subject matter under 35 U.S.C. § 101. The Examiner further objected to terminology used in claim 12, rejected claim 20 under 35 U.S.C. § 112, ¶ 1 as failing to comply with the written description requirement, and rejected claims 5, 8, 10, 11, 19, and 20 under 35 U.S.C. § 112, ¶ 2 for containing antecedent errors. In addition, the Examiner rejected claims 1-3 and 5-20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0233523 ("Jamil"). Finally, the Examiner rejected claims 4 and 21-22 under 35 U.S.C. § 103(a) as being unpatentable over Jamil in view of U.S. Patent No. 5,522,077 ("Cuthbert"). Applicants respectfully traverse these pending objections and rejections for at least the reasons set forth below.

**Claim Objection**

The Examiner objected to claim 12 because it was unclear to the Examiner whether the recited “previous electronic data element” was the same as “an electronic data element” recited in other pending claims. In this response, Applicants have amended claim 12 to remove the phrase “a previous electronic data element” forming the basis of this objection. Accordingly, Applicants submit that this claim objection should be withdrawn.

**Double Patenting**

The Examiner provisionally rejected claim 1 as being unpatentable over claim 1 in copending U.S. Application Ser. No. 10/721,898. Although the Examiner provided an element-by-element comparison of these claims, Applicants respectfully point out that claim 1 has been significantly amended in the instant application. Consequently, amended claim 1 recites various features, such as, for example, “setting a shared lock on the electronic data element after the state of the identifier has been set to the first state,” “removing the shared lock from the electronic data element after the one or more processed data objects have been committed to storage in the memory of the source system,” “setting an exclusive lock on the electronic data element after changing the state of the identifier to the third state,” and “removing the exclusive lock from the electronic data element after replicating the one or more processed data objects from the source system to the target system,” that are not recited in claim 1 of copending U.S. Application Ser. No. 10/721,898.

For at least this reason, Applicants submit that the double-patenting rejection should be removed, since claim 1, as currently amended in the present application, is patentably distinct from claim 1 in copending U.S. Application Ser. No. 10/721,898.

**35 U.S.C. § 101 Rejections**

The Examiner rejected claims 1-22 under 35 U.S.C. § 101 on the basis that “Claim 1 merely manipulates data without ever producing a useful, concrete and tangible result because storing a data structure with different states (values) is a mere compilation of data, therefore, non-statutory.” Non-final Office Action dated May 2, 2007, p. 5. In this response, Applicants have amended claim 1 to recite a method for replicating data objects from a source system to a target system. The method recites steps that provide a practical application for replicating data objects from one memory location to another. Thus, amended claim 1 produces a “useful, concrete and tangible result” in accordance with 35 U.S.C. § 101. Moreover, each of the other independent claims 23-25, although different in scope from amended independent claim 1, recite similar steps for replicating data objects. Accordingly, Applicants respectfully submit that the pending Section 101 rejections should be removed.

**35 U.S.C. § 112, ¶ 1 Rejection**

The Examiner rejected claim 20 under 35 U.S.C. § 112, ¶ 1 because the phrase “the electronic data elements are replicated from a source system to a target system” is allegedly not supported in the specification. Non-final Office Action dated May 2, 2007, p. 6. In this response, Applicants have amended claim 20 to remove this phrase, thereby obviating the pending Section 112, ¶ 1 rejection.

**35 U.S.C. § 112, ¶ 2 Rejections**

The Examiner rejected claims 5, 8, 10, 11, 19, and 20 under 35 U.S.C. § 112, ¶ 2 for containing various antecedent errors. Applicants have corrected each of the antecedent errors identified in the Office Action, thereby obviating the pending Section 112, ¶ 2 rejections.

**35 U.S.C. § 102(e) Rejections**

The present application was filed on the same day, having the same written description and drawings, as the related U.S. Application Ser. Nos. 10/721,348, 10/721,898, and 10/721,426. The Examiner of the present application is concurrently examining copending U.S. Application Ser. No. 10/721,898.<sup>1</sup> During prosecution of copending application 10/721,898, the Examiner conducted a telephone interview with Applicants' undersigned representative on June 1, 2007, to discuss differences between Jamil and Applicants' disclosure. In that interview, the Examiner acknowledged that specific state transitions among the claimed first, second, and third states could distinguish Applicants' disclosed data-object replication systems and methods from the teachings in Jamil.

Because the Examiner rejected independent claim 1 in the present application under 35 U.S.C. § 102(e) as being anticipated by Jamil, Applicants have amended claim 1 to recite specific state transitions, as suggested by the Examiner with reference to copending application 10/721,898, and to further recite specific steps that are performed in a given state, to better distinguish amended claim 1 over the art of record.

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<sup>1</sup> U.S. Application Ser. No. 10/721,426 has been patented as U.S. Patent No. 7,225,302 and U.S. Application Ser. No. 10/721,348 is currently pending before a different Examiner.

For example, independent claim 1, as presently amended, calls for a combination including, among other things:

- “a first state, in which said electronic data element is accessible by one or more data object processing operations and whereby said identifier is assignable to one or more data objects”;
- “a second state, in which said electronic data element is not accessible by one or more data object processing operations and whereby said identifier is assignable to one or more data objects”;
- “a third state, in which said electronic data element is not accessible by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects”;
- “setting the state of the identifier to the first state”;
- “setting a shared lock on the electronic data element after the state of the identifier has been set to the first state”;
- “processing, by one or more data object processing operations, the one or more data objects assigned to the identifier while the identifier is set to the first state”;
- “changing, after removing the shared lock from the electronic data element, the state of the identifier to the third state”;
- “setting an exclusive lock on the electronic data element after changing the state of the identifier to the third state”; and

- “replicating, after setting the exclusive lock on the electronic data element, the one or more processed data objects from the memory in the source system to a memory in the target system.”

As discussed with the Examiner, Jamil fails to teach or suggest at least the above-noted claimed first, second, and third identifier states and their respectively claimed state transitions for replicating data objects from a source system to a target system, as recited in Applicants’ amended independent claim 1. For at least this reason, Applicants respectfully submit that independent claim 1, as presently amended, is allowable over the art of record.

Amended independent claims 23-25, although different in scope from amended independent claim 1, recite similar claim language and are thus allowable over the art of record for at least the same reasons.

### **35 U.S.C. § 103(a) Rejections**

Dependent claims 2-13, 17, and 19-22 depend on allowable independent claim 1 and are therefore allowable for at least the same reasons.

### **Conclusion**

The preceding remarks are based only on the arguments in the Office Action, and therefore do not address patentable aspects of the invention that were not addressed by the Examiner in the Office Action. The claims may include other elements that are not shown, taught, or suggested by the cited art. Accordingly, the preceding remarks in favor of patentability are advanced without prejudice to other possible bases of patentability.

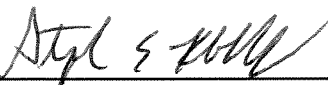
In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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